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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,587	01/20/2004	Yaz-Tzu Wu	LA-7196-138.US	4282
167	7590	08/22/2006	EXAMINER	
FULBRIGHT AND JAWORSKI LLP 555 S. FLOWER STREET, 41ST FLOOR LOS ANGELES, CA 90071			WRIGHT, INGRID D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,587

Applicant(s)

WU ET AL.

Examiner

Ingrid Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/7/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10-14, 17-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-14, 17-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/20/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: 3 Attachments.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. US 6912122 B2 in view of Armitage et al. US 6282082 B1, further in view of Tseng et al. US 200400900740. Note: See attached fig. 1c & 2 of Chen et al. & fig. 7 of Tseng et al. for elements representing claimed limitations in the instant application.

With respect to claim 1, Chen et al. teaches (fig. 1a,b,c-2) a modularized electronic device coupling architecture for the coupling of a first modularized electronic device (110) with a second modularized electronic device (130), the modularized electronic device coupling architecture comprising: a rotation mechanism (120), which includes a fixed portion (126,127,128) and a circular rotatable portion (122,124), wherein the fixed portion (126,127,128) is fixed to the second modularized electronic device (130) while the circular rotatable portion (122,124) is rotatable on the fixed portion (126,127,128), and wherein the circular rotatable portion (122,124) is formed with at least one engaging hole (127); a pivot mechanism (see, fig. 2 of Chen et al.), which is fixed to one side of the tablet computer (see, col. 3, lines 32-37 of Chen et al.), and which includes at least one rotating shaft (see, fig. 2 of Chen et al.) that allows the first modularized electronic device (110) to be rotatable thereabout; and at least one insert leg (see, fig. 2 of Chen et al.), which has a first end (see, fig. 2 of Chen et al.) and a second end (see, fig. 2 of Chen et al.), wherein the first end (see, fig. 2 of Chen et al.) is fixedly linked to the first end (see, fig. 2 of Chen et al.)

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of the rotating shaft (see, fig. 2 of Chen et al.) on the pivot mechanism (see, fig. 2 of Chen et al.), while the second end (see, fig. 2 of Chen et al.) is used for insertion into the engaging hole (hole portion near fixing hole (127)) in the circular rotatable portion on the rotation mechanism (120), and an engaging mechanism (see, fig. 2 of Chen et al.), which is capable of engaging the insert leg (see, fig. 2 of Chen et al.) in position in the engaging hole (127) in the circular rotatable portion (122,124) on the rotation mechanism (120), and an engaging mechanism (see, fig. 2), which is capable of engaging the insert leg (see, fig. 2 of Chen et al.) in position in the engaging hole (127) in the circular rotatable portion (122,124) of the rotation mechanism (see, fig. 2 of Chen et al.), the engaging mechanism (see, fig. 2 of Chen et al.) comprising an elastic locking member (see, fig. 2 of Chen et al.) being arranged on the second insert leg (see, fig. 2 of Chen et al.), wherein the elastic member (see, fig. 2 of Chen et al.) is capable of being positioned on the inside insert leg (see, fig. 2 of Chen et al.) when subjected to an external force and positioned on the outside insert leg (see, fig. 2 of Chen et al.) when the external force is removed, wherein the pressing force urges the elastic locking member (see, fig. 2 of Chen et al.) into the insert leg (see, fig. 2 of Chen et al.), when the pressing force is removed, the elastic (see, fig. 2 of Chen et al.), the elastic locking member (see, fig. 2 of Chen et al.) is restored to its original position on the outside of insert leg (see, fig. 2 of Chen et al.) by means of an elastic restoration force from an elastic member (see, fig. 2 of Chen et al.), wherein the locking hole structure is formed on an inner wall of the engaging hole (127) in the circular rotatable portion (122,124) of the rotation mechanism (120) and capable of locking the insert leg (see, fig. 2 of Chen et al.) securely in position when the second end of the insert leg (see, fig. 2 of Chen et al.) is inserted into position in the engaging hole (127), but is silent as to specifically the elastic locking member (see, fig. 2 of Chen et al.) having a upward-facing sliding surface and a downward-facing sliding surface and to a first modularized electronic device, which is independently operable when dismounted from the second modularized electronic device.

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Armitage teaches (fig. 6,7) a first modularized electronic device (102), which is independently operable when dismounted from a second modularized electronic device (104) (see, col. 8, lines 43-48 of Armitage).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the first modularized electronic device as taught by Armitage et al. in the invention of Chen et al., in order to provide a modular computer system having wireless communication interfaces to a base unit or other peripheral devices for the computer system of Chen et al.

Tseng et al. teaches an upward-facing sliding surface and a downward-facing sliding surface (see, fig. 7 of Tseng et al.), of a rotatable display module (4), for an electronic device (see, Abstract of Tseng et al.), in order to provide an end surface for a spring biased catch (542) of a positioning unit (5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sliding surfaces of Tseng et al., in the invention of Chen et al., in order to provide an alternate equivalent means of allowing the locking mechanism of Chen et al. to assist in the positioning of the rotatable display.

With respect to claim 2, Chen et al. teaches (Fig. 1a,b,c-2) the first modularized electronic device (110) is a tablet computer (see, for example, col. 3, lines 40-43), while the second modularized electronic device (130) is a keyboard/touchpad base (see, for example, col. 3, lines 32-37).

With respect to claim 3, Chen et al. teaches (Fig. 1a,b,c-2) the first modularized electronic device (110)

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is a tablet computer (see, for example, col. 3, lines 40-43), while the second modularized electronic device (130) is a notebook base unit (see, for example, col. 3, lines 32-37).

With respect to claim 4, Chen et al. teaches (Fig. 1a,b,c-2) the first modularized electronic device (110) is a display unit (see for example, col. 3, lines 20- 25), while the second modularized electronic device (130) is a notebook base unit (see, for example, col. 3, lines 14-15).

2. Claims 5-7,10,16, 17 & 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. US 912122 B2 in view of Armitage et al. US 6282082 B1, further in view of Tseng et al. US 20040090740 A1 & Helot et al. US 6437973 B1.

With respect to claim 5, in regards to all the limitations of claim 1, Chen et al. in view of Armitage et al. & Tseng et al., lacks a first and second type connector.

Helot et al. teaches (Fig. 2) a first-type connector (160,162) and a second-type connector (164,166) which is coupled to the first-type connector via a cable (168) to establish a data communication link between a display (28) and a base (22).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the first and second type connectors of Helot et al. in the invention of Chen et al., in order to establish an electrical connection between electrical receptacles for a computer base and a display (see, col. 3, lines 42-52 of Helot et al.).

With respect to claim 6, in regards to the limitations of claims 1 & 5 above, Helot et al. teaches (Fig. 2)

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establish an electrical connection between electrical receptacles for a computer base and a display (see, col. 3, lines 42-52 of Helot et al.).

With respect to claim 6, in regards to the limitations of claims 1 & 5 above, Helot et al. teaches (Fig. 2) the first-type connector (160,162) that is electrically connected to a second-type connector (164,166) via a flexible cable (168), although the first-type connector is not hot pluggable to the second-type connector.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to easily make the first-type connector hot pluggable to the second-type connector because a hot plug is well know and widely used in the art.

With respect to claim 7, in regards to the limitations of claims 1 & 5 above, Helot et al. teaches (Fig. 2) a first-type connector (160,162) and the second-type connector (164,166), although silent as to the connectors being USB (Universal Serial Bus) compliant connectors.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize USB connectors.

With respect to claim 10, Chen et al. teaches (Fig. 1a,b,c,d-2) a modularized electronic device coupling architecture for the coupling of a first modularized electronic device (110) with a second modularized electronic device (130), the modularized electronic device coupling architecture comprising: a rotation mechanism (120), which includes a fixed portion (126,127,128) and a rotatable portion (122,124,125), wherein the fixed portion (126,127,128) is fixed to the second modularized electronic device (130) while the rotatable portion (122,124,125) is rotatable on the fixed portion (126,127,128), and wherein the

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rotatable portion (122,124,125) is formed with at least one engaging hole (127), a pivot mechanism (see, fig. 2 of Chen et al.) , which is fixed to one side of the tablet computer (110), and which includes at least one rotating shaft portion (see, fig. 2 of Chen et al.) that allows the first modularized electronic device (110) to be rotatable thereabout, at least one insert leg (see, fig. 2 of Chen et al.), which has a first end and a second end (see, fig. 2 of Chen et al.), wherein the first end is fixedly linked to the first end of the rotating shaft portion (see, fig. 2 of Chen et al.) on the pivot mechanism (see, fig. 2 of Chen et al.), while the second end is used for insertion into the engaging hole (127) in the rotatable portion (122,124,125) on the rotation mechanism (120), an engaging mechanism (see, fig. 2 of Chen et al.), which is capable of engaging the insert leg (see, fig. 2 of Chen et al.) in the engaging hole (127) in the circular rotatable portion (122,124) of the rotation mechanism (120), the engaging mechanism comprising an elastic locking member (see, fig. 2 of Chen et al.) and a locking hole structure, the elastic locking member (see, fig. 2 of Chen et al.) being arranged on the second end of the insert leg (see, fig. 2 of Chen et al.), wherein the elastic locking member (see, fig. 2 of Chen et al.) is capable of being positioned on the inside leg when subjected to an external force and positioned on the outside of the insert leg (see, fig. 2 of Chen et al.) when the external force is removed, and the elastic locking member (see, fig. 2 of Chen et al.), the pressing force urges the elastic locking member (see, fig. 2 of Chen et al.) into the insert leg (see, fig. 2 of Chen et al.), when the pressing force is removed, the elastic locking member (see, fig. 2 of Chen et al.) is restored to its original position on the outside of the insert leg (see, fig. 2 of Chen et al.) by means of an elastic restoration force from the elastic member (see, fig. 2 of Chen et al.), wherein the locking hole structure is formed on the inner of the engaging hole (127) in the circular rotatable portion (122,124) of the rotation mechanism (120), and capable of locking the insert leg (see, fig. 2 of Chen et al.) in position when the second end (see, fig. 2 of Chen et al.) of the insert leg is inserted in the engaging hole (127), but is silent as to a first and second-type connectors and a modularized electronic device, which is

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independently operable when dismounted from a second modularized electronic device and an upward facing sliding surface and a downward facing sliding surface.

Tseng et al. teaches a upward-facing sliding surface and a downward-facing sliding surface (see, fig. 7 of Tseng et al.), of a rotatable display module (4) of an electronic device (see, Abstract of Tseng et al.), for providing an end surface for a spring biased catch (542) of a positioning unit (5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the sliding surfaces of Tseng et al., in the invention of Chen et al., in order to provide an alternate equivalent means of allowing the locking mechanism of Chen et al. to assist in the positioning of the rotatable display.

Armitage et al. teaches (Fig. 6, 7) a modularized electronic device (102) that is independently operable when dismounted from a second modularized electronic device (104) (col. 8, lines 43-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the first modularized electronic device of Armitage et al. in the invention of Chen et al., in order to provide a modular computer system having wiring communication interfaces to a base unit or other peripheral devices (see, col. 2, lines 37-39 of Armitage et al.).

Helot et al. teaches (Fig. 2) a first-type connector (160,162) and a second-type connector (162,164) to thereby establish a data communication link between a base (22) and a display device (28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize first and second type connectors of Helot et al. in the invention of Chen et al., in order to establish an electrical connection between electrical receptacles for a computer base and a display (see, col. 3, lines 42-52 of Helot et al.).

With respect to claim 11, Chen et al. teaches (Fig. 1a,b,c,d -2) the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device is a keyboard/touchpad base (130).

With respect to claim 12, Chen et al. teaches (Fig. 1a,b,c,d -2) the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device (130) is a notebook base unit.

With respect to claim 13, Chen et al. teaches (Fig. 1a,b,c,d -2) the first modularized electronic device (110) is a liquid crystal display unit, while the second modularized electronic device (130) is a notebook base unit.

With respect to claim 14, Helot et al. teaches (Fig. 2) the first-type connector and the second-type connector, but not USB (Universal Serial Bus) compliant connectors.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the connectors that USB compliant as they are well known in the art.

With respect to claim 15, Chen et al. teaches (Fig. 2) an engaging mechanism, which is capable of

engaging the insert legs (see, fig. 2 of Chen et al.) in position in the engaging holes (hole portion near fixing hole (127)) in the rotatable portion (122,124,125) of the rotation mechanism (120).

With respect to claim 16, Chen et al. teaches (Fig. 2) the engaging mechanism includes: an elastic locking member (spring element on fixing stud (128)), which is arranged on the second end of each of the insert legs (see, fig. 2 of Chen et al.), and which is capable of being positioned on the inside of the insert leg (see, fig. 2 of Chen et al.) when subjected to an external force and positioned on the outside of the insert leg when the external force is removed; and a locking hole structure (127), which is formed in the inner wall (see, fig. 2 of Chen et al.) of the engaging hole (hole portion near fixing hole (127)) in the rotatable portion (122,124,125) of the rotation mechanism (120), and which is capable of locking the insert leg (see, fig. 2 of Chen et al.) securely in position when the second end of the insert leg (see, fig. 2 of Chen et al.) is inserted in position in the engaging hole (hole portion near fixing hole (127)).

Regarding the method claims 17-25, the method steps recited in the claims are inherently necessitated by the device structure as taught by Chen et al., Armitage et al. further in view of Tseng et al. & Helot et al. Chen et al., Armitage et al., Tseng et al. & Helot et al. disclosed a modularized electronic device coupling method for the coupling of a first modularized electronic device (110) with a second modularized electronic device (130), the modularized electronic device coupling method comprising: a pivot mechanism (see, fig. 2 of Chen et al.) and a rotation mechanism (120) respectively on the first modularized electronic device (110) and the second modularized electronic device (130), wherein the pivot mechanism (see, fig. 2 of Chen et al.) engaged with the rotation mechanism (120), by an engaging mechanism (see, fig. 2 of Chen et al.), so as to mechanically and electrically couple the first modularized electronic device (110) with the second modularized electronic device (130), the engaging mechanism (see, fig. 2 of Chen et al.) being capable of engaging the pivot mechanism (see, fig. 2 of Chen et al.) in

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position in position in the rotation mechanism (120), the engaging mechanism (see, fig. 2 of Chen et al.) comprising an elastic locking member (see, fig. 7 of Tseng et al.) and a locking hole structure, the elastic locking member (see, fig. 7 of Tseng et al.) comprising an upward facing sliding surface and a downward facing sliding surface, wherein when a pressing force is acting on either the upward facing sliding surface or the downward facing sliding surface, the pressing force urges the pivot mechanism (see, fig. 2 of Chen et al.) to be engages with the rotation mechanism (120), when the pressing force is removed, the elastic locking member is restored to its original position by means of an elastic restoration force from an elastic member, wherein the locking hole structure (see, fig. 7 of Tseng et al.) is formed in the rotation mechanism (120) and wherein the second modularized electronic device used as a data input interface for the first modularized electronic device (110), wherein the first modularized electronic device (110) is collapsible and rotatable on the second modularized electronic device (130), wherein (as disclosed by Armitage et al. (fig.6,7)) disclosed a modularized device dismounted from another modularized electronic device (104) can serve as an independent functional unit, the modularized electronic device includes a CPU and associated hardware/software facilities that allow the modularized electronic device (102) to operate independently as a data input and processing unit, wherein the hardware/software facilities are selected from the group comprising memory, hard disks, and operating systems, wherein the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device (130) is a keyboard/touchpad base, wherein the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device (130) is a notebook base unit, wherein the first modularized electronic device (110) is a display unit, while the second modularized electronic device (130) is a notebook base unit, wherein (as disclosed by Helot et al. (fig. 2)) a first-type connector (160, 162) and a second-type connector (164,166) electrically coupled to a modularized electronic device to another modularized electronic device, wherein a first-type connector (160, 162) and the second-type connectors (164,166), wherein (as disclosed by Armitage et al. (fig. 6,7)) a first modularized electronic

device (102) detached from the second modularized electronic device, wherein the first modularized electronic device (104) is operable as an independent data input and processing unit.

Response to Arguments

3. Applicant's arguments, with respect to claims 1-7, 10-14 & 17-25, filed 6/7/06, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571)272-8392. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571)272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IDW



LYNN FEILD
SUPERVISORY PATENT EXAMINER

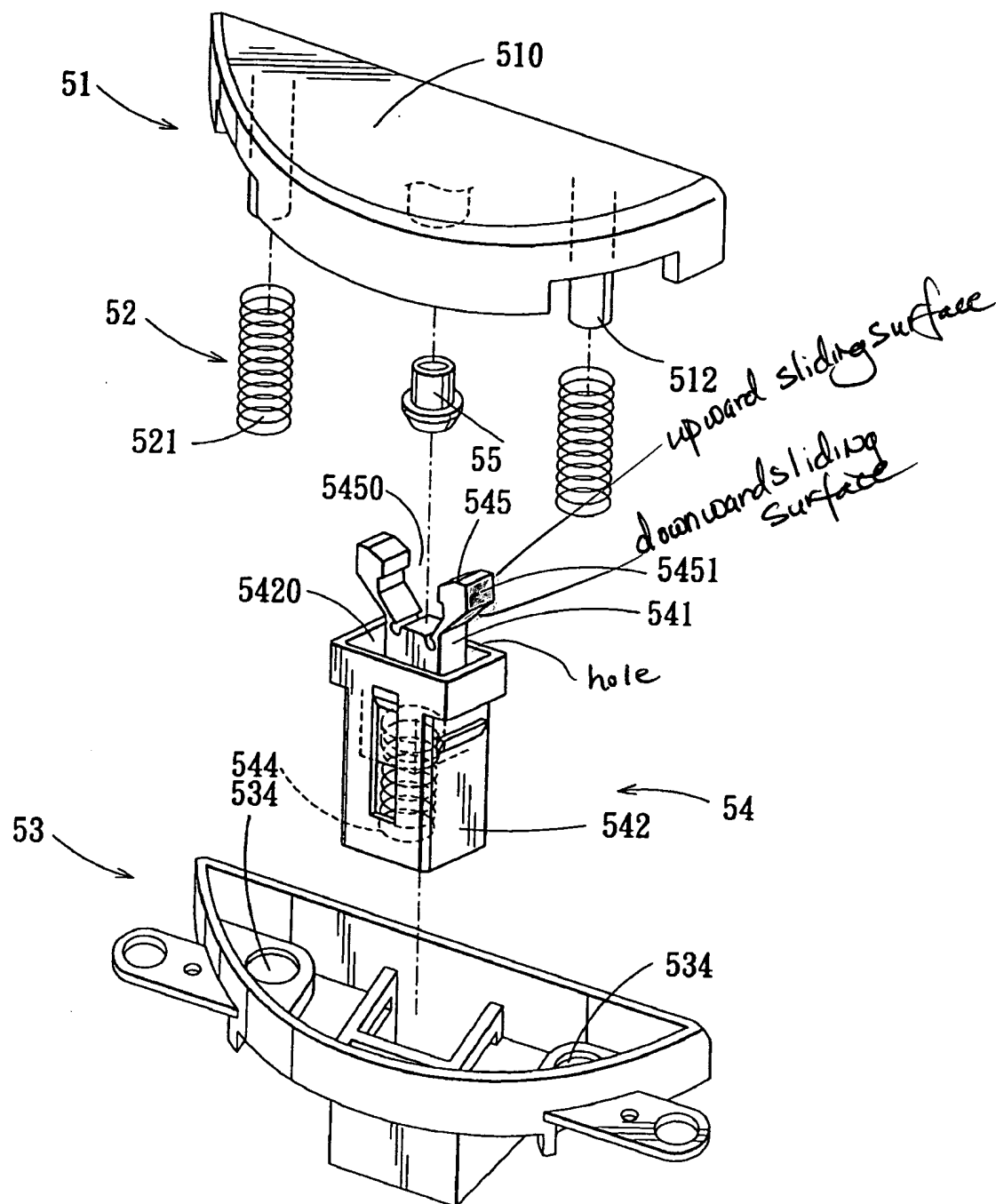


FIG. 7

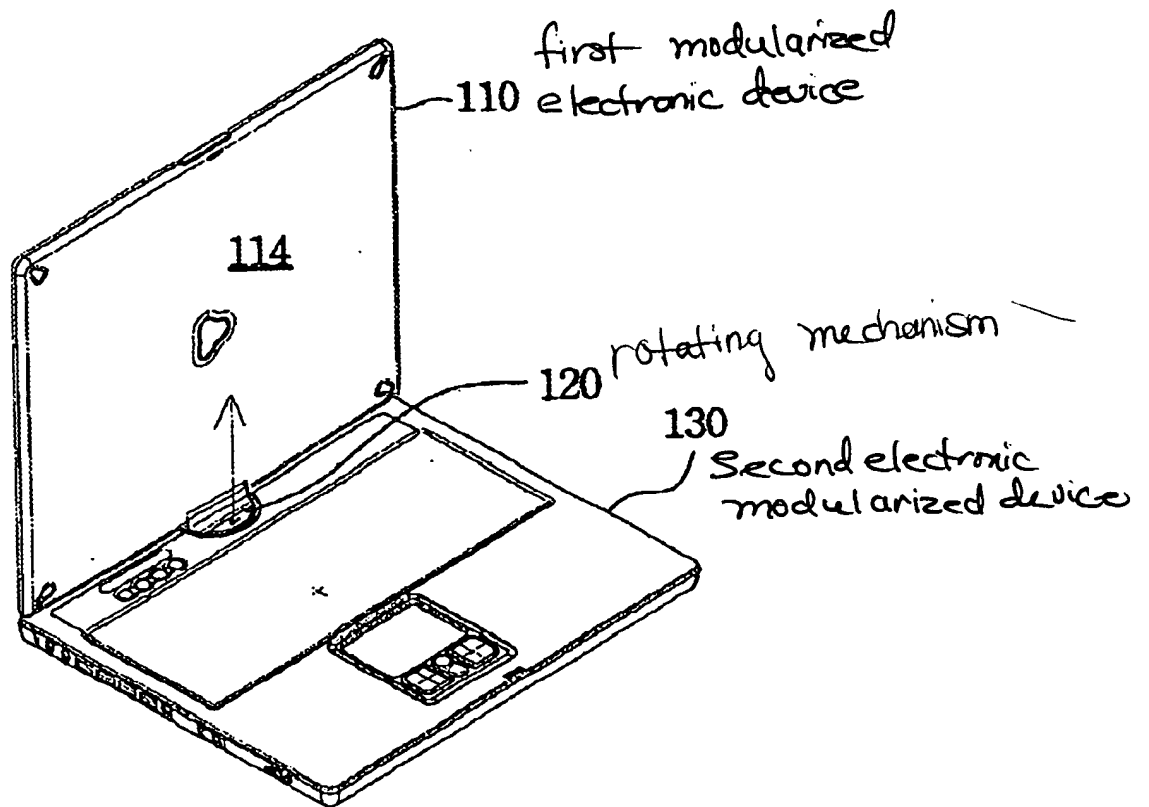


Fig. 1C